

Wenatchee Valley Stormwater Management Program
Post-Construction Stormwater Management

Appendix E
Chelan County Post-Construction Site
Stormwater Program Implementation

Post-Construction Stormwater Management

Introduction

Post-construction best management practices (BMPs) provide long-term water quality and water quantity control for stormwater discharges from development and redevelopment projects. To insure efficient and effective operation, these BMPs must be correctly installed and maintained. The Post-Construction Stormwater Management Program, as set forth by the Eastern Washington Phase II Permit S5(B)(5), requires the development, implementation and enforcement of a program to address post-construction stormwater runoff from public and private projects that disturb one acre or more, and from projects of less than one acre that are part of a common plan of development or sale.

Objective

The goal of the Post-Construction portion of the Stormwater Management Program is to maintain and enforce the program to address post-construction stormwater runoff to the MS4 from new development and redevelopment project. For this specific program, the goal is to ensure that controls to prevent or minimize water quality impacts are in place and are maintained.

This plan documents the process for ensuring proper project review, inspection, and compliance with these requirements.

Program Elements

I. Local Regulation

Each local jurisdiction has an ordinance or resolution that requires post-construction stormwater controls at new development and redevelopment projects. The ordinance or resolutions apply at a minimum to new development and redevelopment sites that disturb one acre or more or are less than one acre that are part of a common plan of development or sale (regulated projects). These regulations were effective February 16, 2011 and were adopted at the same time as the construction stormwater requirements. In addition, the local jurisdictions adopted the Stormwater Management Manual for Eastern Washington as the minimum standards for compliance. The adoption of this manual is the presumptive approach to meeting the NPDES Phase II Permit documentation requirements.

The local regulations include requirements for project proponents and property owners to implement appropriate runoff treatment, flow control, and source control BMPs considering the proposed land use at the site to minimize adverse impacts to water quality. Each jurisdiction has a specific method or methods for calculating runoff volumes and flow rates to ensure the consistent sizing of structural BMPs within their jurisdiction and to facilitate plan review. Jurisdictions may allow proponents of unique or complex projects to use other methodologies. For more information on the jurisdiction-specific requirements please refer to the following local codes:

- Chelan County Code Chapter 13.18 (Resolution No. 2010-19)
- Douglas County Code Chapter 20.36 (Ordinance No. TLS 10-02-03B)
- East Wenatchee City Code Chapter 13.30 (Ordinance No. 2010-05)
- Wenatchee City Code Chapter 12.10 (Ordinance 2010-01).

Chelan County has a policy of encouraging project proponents to maintain natural drainages to the maximum extent possible, including the reducing total amount of impervious surfaces created by the project. No later than December 31, 2017, each jurisdiction shall allow non-structural

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preventative actions and source reduction approaches such as Low Impact Development (LID) techniques, measures, to minimize the disturbance of native soils and vegetation. LID describes a stormwater and land use management strategy that strives to mimic pre-disturbance hydrologic processes of filtration, infiltration, storage, evaporation, and transpiration by emphasizing the conservation of on-site natural features, site planning, and substituted stormwater management practices that are integrated into a project design.

No later than December 31, 2017, jurisdictions must require approved projects to retain runoff generated onsite, for at a minimum, the 10-year, 24-hour rainfall event or a local equivalent. Chelan County, Douglas County and the City of East Wenatchee currently meet this requirement. The City of Wenatchee will be adopting new code to address this requirement and will develop and implement criteria to determine when it is infeasible for a project to meet this requirement.

The local codes also include provisions for post-construction access for jurisdictions to inspect stormwater BMP's on private property that discharge to the MS4 to ensure that adequate ongoing long-term operation and maintenance of the BMPs approved by the jurisdiction. The ordinance or resolution, in lieu of requiring continued access, allows private property owners to provide annual certification by a third party that adequate maintenance has been performed and the facilities are operating as designed to protect water quality. Finally, the ordinance or resolution includes appropriate, escalating enforcement procedures and actions. These enforcement procedures are incorporated into Chelan County Code developed by the county. Appendix A includes the specific implementation plan for the jurisdiction including enforcement.

II. Site Plan Review

All *Stormwater Site Plans* for new development and redevelopment sites greater than or equal to one acre and to projects of less than one acre that are part of a common plan of development or sale must be reviewed prior to construction.

The Stormwater Site Plan shall contain:

- A Permanent Stormwater Control Plan (Drainage Report and Construction Plans)
- A Construction Stormwater Pollution Prevention Plan (See the Construction Site Stormwater Runoff Control section of this plan for details)
- An Operations and Maintenance manual.

The Drainage Report, Construction Plans, and Operations and Maintenance Manual must be prepared and stamped by a licensed Professional Engineer. Requirements for preparation of the Construction Stormwater Pollution Prevention Plan are addressed in the Construction Site Stormwater Runoff Control section of this program.

The permanent stormwater facilities are designed using standards as adopted by the jurisdiction. The Stormwater Site Plan review is performed by qualified personnel. A checklist has been developed to assist the reviewer and is included in Appendix B of the Construction Site Stormwater Runoff Control Program.

The Operation and Maintenance (O&M) Manual is based on standards adopted by the jurisdiction. For private stormwater facilities, the O&M Manual shall become part of an Operation and Maintenance Agreement executed as required by each jurisdiction. An example O&M Agreement has been included in Appendix B.

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Performance and/or maintenance bonds may be required for Stormwater Site Plan approval. Specific requirements will be included in each jurisdiction's ordinance.

III. Site Inspection and Enforcement

a. Maintenance of Stormwater Facilities

The jurisdiction will assume maintenance and operation of stormwater facilities within improved public road right-of-way that receive stormwater from public facilities. The jurisdiction does allow such facilities to be maintained by the homeowners association or similar entity acceptable to the jurisdiction with an approved maintenance agreement in place.

After project completion and inspection, the jurisdiction may assume maintenance and operation of the facilities as specified in each jurisdiction's ordinance. Before assuming maintenance responsibilities, an inspection of all stormwater facilities will be conducted by the jurisdiction to ensure the facilities have been properly maintained and are operating as designed.

Stormwater facilities to be maintained and operated by the jurisdiction must be located in a tract, or right-of-way dedicated to the jurisdiction. Access roads serving these facilities must also be located in the tract or right-of-way and must be connected to an improved public road right-of-way.

b. Facilities Maintained by Private Parties

All privately maintained drainage facilities must be maintained in accordance with a recorded Operations and Maintenance Agreement. A copy of the Operation and Maintenance Manual shall be retained by the entity responsible for maintenance and transferred with the property as ownership changes.

c. Inspection Frequency

All structural BMP's shall be inspected at least once during installation. Facilities maintained by the jurisdiction are inspected prior to taking over maintenance duties.

All privately maintained facilities that discharge or overflow to the municipal separate storm sewer system shall be inspected at least once every five years after final installation by qualified personnel. Access shall be granted to the jurisdiction's staff or qualified personnel to perform required inspections. In lieu of providing this access, private property owners can provide an annual certification prepared by a qualified third party indicating that adequate maintenance has been performed and the facilities are operating as designed to protect water quality.

d. Enforcement

If a site is inspected and problems are identified, the jurisdiction will take action in accordance with Chelan County Code.

IV. Training

a. Municipal Staff

Training is provided to municipal staff involved in permitting, planning, review, inspection and enforcement to carry out the provisions of the Post-Construction Stormwater Management Program elements, including office and field staff.

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Training may include classroom or field instruction, videos, or web based seminars from the Department of Ecology or Environmental Protection Agency website or other source.

Municipal Staff training records shall include:

- Dates
- Activities or course descriptions
- Names and positions of staff in attendance.

Jurisdictions will coordinate post-construction stormwater management training with training for erosion and sediment control to ensure efficient use of resources. The jurisdictions will also determine: type of training, length of training and whether certification is required.

b. Design Professionals

Information on training is provided to design professionals in order to comply with the requirements of Appendix 1 of the Municipal Stormwater Permit and apply the standards adopted by the jurisdiction.

Local jurisdictions do not need to conduct this training, but should direct design professionals to available training resources if requested. Information may be provided as a handout during the pre-application meeting.

Design Professional training records shall include:

- Copies of information provided to Design Professionals
- Copies of information distributed to large numbers of design professionals, including the date of the mailing and the recipient list.

V. Project Record Keeping

a. Facilities maintained by the jurisdiction

Agencies shall keep records of all regulated projects for five years or until construction is completed, whichever is longer, with the exception that approved site plans and O&M agreements shall be kept as needed to comply with on-going inspection requirements. Records that shall be kept at a minimum include:

- Approved site plans
- O&M agreements
- Inspection reports
- Enforcement actions
- Warning letters
- Notice of Violations

Inspection records will be on the jurisdiction approved form and shall include at a minimum:

- Location of facility
- Date of inspection
- Inspection personnel
- Condition of the facility
- Action required

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Appendix:

Appendix A Chelan County's Implementation Plan

Appendix B Example Operation & Maintenance Agreements

Appendix C Structural BMP Acceptance Checklist

Appendix D Private Facility Certification Form

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Appendix A

Chelan County Post-Construction Site Stormwater Program Implementation

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Chelan County Post-Construction Stormwater Implementation Plan

As with the Construction Site Stormwater Runoff Control Program, the Post-Construction Program will be managed through plan reviews, site inspections, staff training and enforcement of Chelan County Code (CCC)13.18 and in compliance with the Eastern Washington Phase II Permit. This program covers all land-disturbing activities, new subdivisions, and redevelopment projects disturbing greater than or equal to one acre and to projects less than one acre that are part of a common plan of development or sale where the disturbed area of the entire plan is greater than or equal to one acre. CCC 13.18 became effective on February 16, 2011.

In addition to county code and the Stormwater Management Manual for Eastern Washington, the county's policies regarding the development of new stormwater infrastructure and pollution prevention can be found in the Chelan County's Comprehensive Stormwater Plan (July 2011). The plan was adopted by the Board of County Commissioners in December 2012 and includes policies on drainage and flood-control, water quality, canyon drainage mitigation, and financial goals of the stormwater utility. Specific policies include encouraging low-impact development practices and land-use practices that limit the amount of impervious surface area.

I. Site Plan Review

Along with the Stormwater Pollution Prevention Plan (SWPPP) required for construction stormwater management, county staff in the Public Works Department will review the permanent stormwater control plan and operations maintenance manual for the project. As with the SWPPP, review of construction and post-construction documents will be conducted under the supervision of the County Engineer. The Construction & Post-Construction Stormwater Project Review Checklist is used to verify that plans have met the minimum requirements.

II. Transfer of Ownership

The county may assume ownership of privately-owned facilities where there is a regional benefit to the utility and if the conditions stated in CCC 13.18.040(7)(H) are met. All stormwater facilities within the improved public road right-of-way that receive stormwater from public facilities will be operated and maintained by the county upon acceptance of the work. A structural BMP acceptance checklist has been included in Appendix C of the Post-Construction Stormwater Management Program.

III. Operation & Maintenance of Stormwater Facilities

The operation and maintenance of stormwater facilities owned by the county will be carried out in accordance with Chelan County's Stormwater Pollution Prevention Operations and Maintenance Plan. Owners of private stormwater facilities assume the responsibility of maintaining their facilities in a manner that prevents stormwater pollution and maintains the facilities in accordance with the recorded Operations and Maintenance Agreement. In addition to maintenance activities, the owner is responsible for annual inspections, record keeping and reporting.

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Appendix B

Example Operations & Maintenance Agreements

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Return document to: Surface and Stormwater Management Utility
 C/O Chelan County Public Works
 316 Washington Street, Suite 402
 Wenatchee, WA 98801

Document Title:	Declaration of Storm Water System Maintenance Covenants
Related Documents:	
Grantor:	
Grantee:	Chelan County through its Public Works Department
Legal Description:	
Parcel Numbers(s):	

**DECLARATION OF STORM WATER SYSTEM MAINTENANCE COVENANTS
FOR _____**

[Project Name]

The Grantors, Owners and Developers of _____, hereby declare and agree as follows:

1. The Grantors are the Owners and Developers of the following described real property located at Chelan County, Washington: **[Enter or attach]**

The Grantors are developing the real property for commercial use.

2. The Grantors have designed and constructed a private storm water drainage system to serve the above real property in accordance with the plans Grantors have filed with Chelan County. The approved plans are attached hereto as **Exhibit A**.
3. The Grantors agree to maintain the storm water drainage system as originally designed, and in accordance with the Chelan County Code and the specifications attached hereto as **Exhibit B**. The Grantors shall not reduce, expand or otherwise modify the design or operation of the storm water drainage system without first obtaining review by and written approval of Chelan County.
4. If in the future the Grantors apply for and obtain approval to subdivide the above described real property, the Grantors agree to implement a long-term funding mechanism to support operation, maintenance, repairs and improvements required for proper functioning of the private storm water drainage system as a condition of approval. Such funding mechanism shall be implemented by creation of an Owner's Association by further declarations and covenants binding upon the real property described above, all lots within the above development and Grantors' purchasers, successors and assigns.
5. The Grantors agree to maintain logs of inspection and maintenance activities for the storm water drainage system and to submit copies of the logs to Chelan County not less than once each calendar year.
6. All inspection and maintenance logs, and other documents and records pertaining to the storm water drainage system shall, upon request, be made available to Chelan County and any other agencies having jurisdiction for inspection and copying.
7. Chelan County shall have the right to enter the above-described real property for the purpose of inspecting the condition and/or maintenance of the storm water drainage system and/or to determine the Grantors' compliance with these Covenants. The Grantors agree to fully comply with all written notices of corrective action issued by Chelan County and other agencies having jurisdiction. If the Grantors fail to fully and timely comply as required by a written notice of corrective action, then Chelan County may enter the above-described property to perform all work necessary to fully complete repairs and maintenance to the storm water drainage system or otherwise bring the system into compliance with these Covenants. The Grantors agree to pay all costs and expenses incurred by Chelan County for such repairs and maintenance, including the cost of personnel, equipment and materials and Chelan County's contractors.
8. The Grantors hereby waive any and all claims for damages against Chelan County arising from the design, construction, inspection, repair and/or maintenance of the storm water drainage system. The Grantors agree to indemnify, defend and hold Chelan County harmless from any and all claims arising from the design, construction, inspection, repair and/or maintenance of the storm water drainage system.
9. These Covenants shall continue in perpetuity.

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10. The covenants shall run with the land described above and shall be binding on all Grantors' purchasers, successors and assigns.

DATED this ____ day of _____, 20__.

OWNERS

Date: _____
_____ [Name/Title]

Date: _____
_____ [Name/Title]

DEVELOPER

Date: _____
_____ [Name/Title]

Date: _____
_____ [Name/Title]

STATE OF WASHINGTON)
County of _____) ss.

I certify that I know or have satisfactory evidence that _____ signed this instrument and acknowledged it to be their/his/her free and voluntary act for the uses and purposes mentioned in this instrument.

DATED this ____ day of _____, 20__.

By: _____
Notary Public residing at _____
My Appointment Expires: _____

STATE OF WASHINGTON)
County of _____) ss.

I certify that I know or have satisfactory evidence that _____ is the _____ of _____ and signed this instrument and acknowledged it to be its free and voluntary act for the uses and purposes mentioned in this instrument.

DATED this ____ day of _____, 20__.

By: _____
Notary Public residing at _____
My Appointment Expires: _____

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Return document to: Surface and Stormwater Management Utility
 C/O Chelan County Public Works
 316 Washington Street, Suite 402
 Wenatchee, WA 98801

Document Title:	Declaration of Storm Water System Maintenance Covenants
Related Documents:	
Grantor:	
Grantee:	Chelan County through its Public Works Department
Legal Description:	
Parcel Numbers(s):	

DECLARATION OF STORM WATER SYSTEM MAINTENANCE COVENANTS
FOR _____

[Plat Name]

The Grantors, Owners and Developers of _____, hereby declare and agree as follows:

11. The Grantors are the Owners and Developers of the following described real property located at Chelan County, Washington: [Enter or attach]

The Grantors intend to sell the lots created by approval of _____ [Plat Name]

12. The Grantors have designed and constructed a private storm water drainage system to serve the above real property in accordance with the plans Grantors have filed with Chelan County. The approved plans are attached hereto as **Exhibit A**.
13. The Grantors agree to maintain the storm water drainage system as originally designed, and in accordance with the Chelan County Code and the specifications attached hereto as **Exhibit B**. The Grantors shall not reduce, expand or otherwise modify the design or operation of the storm water drainage system without first obtaining review by and written approval of Chelan County.
14. The Grantors agree to implement a long-term funding mechanism to support operation, maintenance, repairs and improvements required for proper functioning of the private storm water drainage system. Such funding mechanism shall be implemented by creation of an Owner's Association by further declarations and covenants binding upon the real property described above, all lots within the above development and Grantors' purchasers, successors and assigns.
15. The Grantors agree to maintain logs of inspection and maintenance activities for the storm water drainage system and to submit copies of the logs to Chelan County not less than once each calendar year.
16. All inspection and maintenance logs, and other documents and records pertaining to the storm water drainage system shall, upon request, be made available to Chelan County and any other agencies having jurisdiction for inspection and copying.
17. Chelan County shall have the right to enter the above-described real property for the purpose of inspecting the condition and/or maintenance of the storm water drainage system and/or to determine the Grantors' compliance with these Covenants. The Grantors agree to fully comply with all written notices of corrective action issued by Chelan County and other agencies having jurisdiction. If the Grantors fail to fully and timely comply as required by a written notice of corrective action, then Chelan County may enter the above-described property to perform all work necessary to fully complete repairs and maintenance to the storm water drainage system or otherwise bring the system into compliance with these Covenants. The Grantors agree to pay all costs and expenses incurred by Chelan County for such repairs and maintenance, including the cost of personnel, equipment and materials and Chelan County's contractors.
18. The Grantors hereby waive any and all claims for damages against Chelan County arising from the design, construction, inspection, repair and/or maintenance of the storm water drainage system. The Grantors agree to indemnify, defend and hold Chelan County

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harmless from any and all claims arising from the design, construction, inspection, repair and/or maintenance of the storm water drainage system.

- 19. These Covenants shall continue in perpetuity.
- 20. The covenants shall run with the land described above and shall be binding on all Grantors' purchasers, successors and assigns.

DATED this ____ day of _____, 20__.

OWNERS

Date: _____
_____ [Name/Title]

Date: _____
_____ [Name/Title]

DEVELOPER

Date: _____
_____ [Name/Title]

Date: _____
_____ [Name/Title]

STATE OF WASHINGTON)
County of) ss.

I certify that I know or have satisfactory evidence that _____ signed this instrument and acknowledged it to be their/his/her free and voluntary act for the uses and purposes mentioned in this instrument.

DATED this ____ day of _____, 20__.

By: _____
Notary Public residing at _____
My Appointment Expires: _____

STATE OF WASHINGTON)
County of) ss.

I certify that I know or have satisfactory evidence that _____ is the _____ of _____ and signed this instrument and acknowledged it to be its free and voluntary act for the uses and purposes mentioned in this instrument.

DATED this ____ day of _____, 20__.

By: _____
Notary Public residing at _____
My Appointment Expires: _____

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Appendix C

Structural BMP Acceptance Checklist

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Structural BMP Acceptance Checklist

Development Name: _____
Owner: _____
Owner Address: _____
Owner Phone #: _____
Owner Email: _____
Inspection Date: _____
Inspector Name: _____

BMP:		
Installed according to plans		
Record drawings received		
Maintained according to standards		
Easement recorded		
Other (describe)		

Corrections Needed: _____

Re-inspection Date: _____

Acceptance Date: _____

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Appendix D
Private Facility Certification Form

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Private Facility Certification Form Cover Sheet

A. General Information

Use only one Cover Sheet per site with as many specific structural BMP Inspection Report attachments as needed. Please attach digital photographs of the site and structural BMPs as applicable.

Development Name: _____	Inspection Date: _____
BMP Owner: _____	Inspection Company: _____
Owner Address: _____	Company Address: _____
_____	_____
Owner Phone #: _____	Inspector Name: _____
Owner Email: _____	Inspector Phone #: _____
	Inspector Email: _____

B. Inspection Report Attachments

The listed attachments are the Structural BMP Inspection Reports to be completed for this particular site. Please use one attachment per BMP inspected and submit all forms together with this Cover Sheet as one single report. Also, please document the number of each structural BMP found at this site in the space below.

		# of BMPS
Attachment A	Bioretention Area	
Attachment B	Dry Detention Basin	
Attachment C	Grass Swale	
Attachment D	Infiltration Basin	
Attachment E	Infiltration Trench	
Attachment F	Sand Filter	
Attachment G	Underground Detention	
Attachment H	Other	

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C. Inspection Results

FAIL*

***If any one item on the inspection form is coded as "Work needed", then the entire BMP fails inspection.**

***If a site has multiple BMPs and on fails inspection, this cover sheet is marked as fail until all items on all BMPs pass inspection.**

NOTE: Applicable BMP Inspection Reports and confirmatory digital photographs summarizing required repairs must be submitted to the City/County following completion of the preliminary inspection. A re-inspection and certification must be completed within 30 days of the failed preliminary report.

PASS

NOTE: A passing inspection form should be signed below by the appropriate professional and submitted to the City/County on or before the established inspection due date. Attach all applicable BMP Inspection Reports and confirmatory digital photographs accordingly.

D. Professional Certification

To be completed only when all structural BMPs at this site are functional with no outstanding maintenance issues.

I, _____, as a duly registered _____
attest that a thorough inspection has been completed for all structural BMPs that are associated with this particular site. All inspected structural BMPs are performing properly and are in compliance with the terms and conditions of the recorded maintenance agreement for the site.

Signature: _____

Date: _____

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Attachment A

Bioretention Operation and Maintenance Inspection Report

Development Name: _____
 BMP Name: _____
 Inspector Name: _____
 Inspector Company: _____

Inspection Date: _____
 Recent Rainfall Date: _____
 Rainfall Depth (in): _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Perimeter of the Bioretention Facility		
Bare soil/erosive gullies		
Other (describe)		

Inlet Device: Pipe, stone verge or swale		
Clogged pipe		
Cracked or damaged pipe		
Erosion in the swale		
Stone verge clogged or covered		
Other (describe)		

Pretreatment Area		
Sediment accumulation (>3 inches)		
Erosion/gullies present		
Invasive vegetation		
Flow is bypassing pretreatment		
Other (describe)		

Bioretention Vegetation		
Pruning needed for optimal health		
Plants are dead, diseased, or dying		
Tree stakes/wire present (>6 months after planting)		
Other (describe)		

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Bioretention Soils & Mulch		
Mulch is breaking down or gone		
Soils/mulch clogged with sediment		
Other (describe)		

Underdrain System		
Clogging has occurred		
Other (describe)		

Drop Inlet		
Inlet clogged		
Drop inlet damaged		
Debris on trash rack		
Other (describe)		

Outlet		
Erosion/Damage at the outlet		
Other (describe)		

Miscellaneous		
Mulch is breaking down or gone		
Soils/mulch clogged with sediment		
Other (describe)		

Photographs

Attach digital photographs of the site and structural BMPs including a caption describing the photo.

Additional Comments

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Attachment B

Dry Detention Basin Operation and Maintenance Inspection Report

Development Name: _____
 BMP Name: _____
 Inspector Name: _____
 Inspector Company: _____

Inspection Date: _____
 Recent Rainfall Date: _____
 Rainfall Depth (in): _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Perimeter of the Bioretention Facility		
Bare soil/erosive gullies		
Other (describe)		

Inlet Device: Pipe or swale		
Clogged pipe		
Cracked or damaged pipe		
Erosion in the swale		
Other (describe)		

Forebay		
Sediment accumulation (75% of original depth)		
Erosion or riprap displaced		
Invasive vegetation		
Other (describe)		

Main Treatment Area		
Sediment accumulation (75% of original depth)		
Standing water (>5 days after storm)		
Invasive vegetation		
Other (describe)		

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Embankment		
Shrubs/trees present		
Grass cover unhealthy/eroding		
Signs of seepage on downstream face		
Evidence of pests		
Needs repair		
Other (describe)		

Outlet Device		
Outlet clogged		
Device is damaged		
Debris on trash rack		
Other (describe)		

Outlet		
Erosion/Damage at the outlet		
Other (describe)		

Miscellaneous		
Access problems		
Vandalism		
Signage missing		
Other (describe)		

Photographs

Attach digital photographs of the site and structural BMPs including a caption describing the photo.

Additional Comments

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Attachment C

Grass Swale Operation and Maintenance Inspection Report

Development Name: _____ Inspection Date: _____
 BMP Name: _____ Recent Rainfall Date: _____
 Inspector Name: _____ Rainfall Depth (in): _____
 Inspector Company: _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		
Bare soil/erosive gullies		
Sediment covers grass at swale bottom		
Vegetation is too short or long		
Other (describe)		

Outlet		
Erosion/Damage at the outlet		
Other (describe)		

Miscellaneous		
Access problems		
Vandalism		
Signage missing		
Other (describe)		

Photographs

Attach digital photographs of the site and structural BMPs including a caption describing the photo.

Additional Comments

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Attachment D

Infiltration Basin Operation and Maintenance Inspection Report

Development Name: _____
 BMP Name: _____
 Inspector Name: _____
 Inspector Company: _____

Inspection Date: _____
 Recent Rainfall Date: _____
 Rainfall Depth (in): _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Perimeter of Infiltration Basin		
Bare soil/erosive gullies		
Other (describe)		

Inlet Device: Pipe or swale		
Clogged pipe		
Cracked or damaged pipe		
Erosion in the swale		
Other (describe)		

Forebay		
Sediment accumulation (75% of original depth)		
Erosion or riprap displaced		
Invasive vegetation		
Other (describe)		

Main Treatment Area		
Visible layer of sediment accumulated		
Standing water (>5 days after storm)		
Invasive vegetation		
Other (describe)		

Embankment		
Shrubs/trees present		
Needs repair		
Other (describe)		

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Attachment E

Infiltration Trench Operation and Maintenance Inspection Report

Development Name: _____
 BMP Name: _____
 Inspector Name: _____
 Inspector Company: _____

Inspection Date: _____
 Recent Rainfall Date: _____
 Rainfall Depth (in): _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Grass Filter Strip or Other Pretreatment Area		
Bare soil/erosive gullies		
Sediment accumulation (>6 in)		
Other (describe)		

Flow Diversion Structure		
Clogged structure		
Structure is damaged		
Other (describe)		

Trench		
Ponding water (>24 hours after event)		
Sediment accumulation (75% of original depth)		
Invasive vegetation		
Other (describe)		

Observation Well(s)		
Water table within 1 ft of bottom of system for 3 months		
Outflow pipe clogged		
Outflow pipe damaged		
Other (describe)		

Emergency Overflow Berm		
Erosion or signs of damage at outlet		
Other (describe)		
Outlet		

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Attachment F

Sand Filter Operation and Maintenance Inspection Report

Development Name: _____
 BMP Name: _____
 Inspector Name: _____
 Inspector Company: _____

Inspection Date: _____
 Recent Rainfall Date: _____
 Rainfall Depth (in): _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Adjacent Pavement		
Sediment present on the pavement		
Other (describe)		

Perimeter of Sand Filter		
Bare soil/erosive gullies		
Vegetation is too short or long		
Other (describe)		

Flow Diversion Structure		
Structure clogged		
Structure damaged		
Other (describe)		

Forebay or Pretreatment Area		
Sediment accumulation (>6 in)		
Erosion		
Weeds		
Other (describe)		

Filter Bed and Underdrain Collection System		
Ponding water >24 hrs after event		
Other (describe)		

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Attachment G

Underground Detention System and Maintenance Inspection Report

Development Name: _____ Inspection Date: _____
 BMP Name: _____ Recent Rainfall Date: _____
 Inspector Name: _____ Rainfall Depth (in): _____
 Inspector Company: _____

Code Key: N/A = Not Applicable
 N = No Problem
 WN = Work Needed
 M = Monitor (potential for future problem)

Potential Problem	Code	Comments
Entire BMP		
Trash/debris present		

Inlet Device		
Pipe clogged		
Pipe cracked/damaged		
Structure damaged		
Other (describe)		

Underground Vaults/Pipes		
Sediment accumulation (>design depth)		
Seepage/settlement accompanied by cracking		
Joint alignment/elongation/cracking		
Leakage or surface water infiltration		
Surface wear/loss of coating or corrosion		
Blockage of pipe or vault		
Other (describe)		

Outlet Device		
Clogging		
Device damage		
Outflow pipe clogged/damaged		
Other (describe)		

